#17

SEQUENCE LISTING

<110> The University of British Columbia; and
Chemokine Therapeutics Corporation

<120> CXCR4 ANTAGONIST TREATMENT OF HEMATOPOIETIC CELLS

<130> 80021-257

<140> US 09/852,424
<141> 2001-05-09

<150> CA 2,305,787
<151> 2000-05-09

<150> US 60/205,467
<151> 2000-05-19

<160> 135

<170> PatentIn Ver. 2.0

<210> 1
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 1
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 2
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 2
Lys Gly Val Ser Pro Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 3
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 3
Lys Gly Val Ser Leu Pro Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 4
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 4
Lys Gly Val Ser Leu Ser Pro Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro

20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 5
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 5
Lys Gly Val Ser Leu Ser Tyr Pro Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 6
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 6
Lys Gly Val Ser Xaa Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 7
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 7
Lys Gly Val Ser Leu Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 8
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>

<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 8
Lys Gly Val Ser Leu Ser Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 9
<211> 67
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of
disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 9
Lys Gly Val Ser Leu Ser Tyr Xaa Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro
20 25 30

Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln
35 40 45

Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys
50 55 60

Ala Leu Asn
65

<210> 10
<211> 66
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 10
Lys Gly Val Ser Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro Asn
20 25 30

Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln Val
35 40 45

Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
50 55 60

Leu Asn
65

<210> 11
<211> 66
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 11
Lys Gly Val Ser Leu Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro Asn
20 25 30

Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln Val
35 40 45

Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
50 55 60

Leu Asn
65

<210> 12
<211> 66
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 12
Lys Gly Val Ser Leu Ser Xaa Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Val Ala Arg Ala Asn Val Lys His Leu Lys Ile Leu Asn Thr Pro Asn
20 25 30

Cys Ala Leu Gln Ile Val Ala Arg Leu Lys Asn Asn Asn Arg Gln Val
35 40 45

Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
50 55 60

Leu Asn
65

<210> 13
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 13
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 14
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 14
Lys Gly Val Ser Leu Ser Tyr Arg Cys
1 5

<210> 15
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid
chains are joined by a disulphide bond between
each of the cysteines at position 9 in each
sequence.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory (SDF-1 (1-9)2 [P2G])

<400> 15
Lys Gly Val Ser Leu Ser Tyr Arg Cys
1 5

<210> 16
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> VARIANT
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any
other natural or unnatural amino acid serving as a
linker between each of the arginines at position 8
in each of SEQ ID NOS 16 and 17.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory (SDF-1(1-8)2[P2G])

<400> 16
Lys Gly Val Ser Leu Ser Tyr Arg Xaa
1 5

<210> 17
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<220>
<221> SITE
<222> (8)
<223> binds with residue at position 9 of SEQ ID NO 16

<400> 17
Lys Pro Val Ser Leu Ser Tyr Arg
1 5

<210> 18
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 18
Lys Gly Val Ser Pro Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 19
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 19
Lys Gly Val Ser Leu Pro Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 20
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 20
Lys Gly Val Ser Leu Ser Pro Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 21
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 21
Lys Gly Val Ser Leu Ser Tyr Pro Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 22
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 22
Lys Gly Val Ser Xaa Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 23
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of

disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 23
Lys Gly Val Ser Leu Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 24
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 24
Lys Gly Val Ser Leu Ser Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 25
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 25
Lys Gly Val Ser Leu Ser Tyr Xaa Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His

<210> 26
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 26
Lys Gly Val Ser Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

<210> 27
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 27
Lys Gly Val Ser Leu Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

<210> 28
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 28
Lys Gly Val Ser Leu Ser Xaa Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

<210> 29
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 29
Lys Gly Val Ser Pro Ser Tyr Arg Cys
1 5

<210> 30
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 30
Lys Gly Val Ser Leu Pro Tyr Arg Cys
1 5

<210> 31
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 31
Lys Gly Val Ser Leu Ser Pro Arg Cys
1 5

<210> 32
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 32
Lys Gly Val Ser Leu Ser Tyr Pro Cys
1 5

<210> 33
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 33
Lys Gly Val Ser Xaa Ser Tyr Arg Cys
1 5

<210> 34
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 34
Lys Gly Val Ser Leu Xaa Tyr Arg Cys
1 5

<210> 35
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>

<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 35
Lys Gly Val Ser Leu Ser Xaa Arg Cys
1 5

<210> 36
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of
disclosure for possible structures for P*

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 36
Lys Gly Val Ser Leu Ser Tyr Xaa Cys
1 5

<210> 37
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of
disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 37
Lys Gly Val Ser Xaa Tyr Arg Cys
1 5

<210> 38
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of

disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 38
Lys Gly Val Ser Leu Xaa Arg Cys
1 5

<210> 39
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 39
Lys Gly Val Ser Leu Ser Xaa Cys
1 5

<210> 40
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 40
Lys Gly Val Ser Pro Ser Tyr Arg Cys
1 5

<210> 41
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 41
Lys Gly Val Ser Leu Pro Tyr Arg Cys
1 5

<210> 42
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 42
Lys Gly Val Ser Leu Ser Pro Arg Cys
1 5

<210> 43
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 43
Lys Gly Val Ser Leu Ser Tyr Pro Cys
1 5

<210> 44
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 44
Lys Gly Val Ser Xaa Ser Tyr Arg Cys
1 5

<210> 45
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 45

Lys Gly Val Ser Leu Xaa Tyr Arg Cys
1 5

<210> 46
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 46
Lys Gly Val Ser Leu Ser Xaa Arg Cys
1 5

<210> 47
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 9 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 47
Lys Gly Val Ser Leu Ser Tyr Xaa Cys

1 5

<210> 48
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> DISULFID
<222> (8)
<223> dimer of amino acids 1-8 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 8 in each sequence.

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa-Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 48
Lys Gly Val Ser Xaa Tyr Arg Cys
1 5

<210> 49
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DISULFID
<222> (8)
<223> dimer of amino acids 1-8 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 8 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 49
Lys Gly Val Ser Leu Xaa Arg Cys
1 5

<210> 50
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DISULFID
<222> (8)
<223> dimer of amino acids 1-8 in which the amino acid chains are joined by a disulphide bond between each of the cysteines at position 8 in each sequence.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 50
Lys Gly Val Ser Leu Ser Xaa Cys
1 5

<210> 51
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 8 of SEQ ID NOs. 51 and 52.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 51
Lys Gly Val Ser Pro Ser Tyr Arg Xaa
1 5

<210> 52
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (8)
<223> Binds to residue at position 9 of SEQ ID NO 51

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 52
Lys Gly Val Ser Pro Ser Tyr Arg
1 5

<210> 53
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any
other natural or unnatural amino acid serving as a
linker between each of the arginines at position 8
of SEQ ID NOs. 53 and 54.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 53
Lys Gly Val Ser Leu Pro Tyr Arg Xaa
1 5

<210> 54
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (8)
<223> binds to residue at position 9 of SEQ ID NO 53

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 54
Lys Gly Val Ser Leu Pro Tyr Arg
1 5

<210> 55
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 8 of SEQ ID NOs. 55 and 56.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 55
Lys Gly Val Ser Leu Ser Pro Arg Xaa
1 5

<210> 56
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (8)
<223> binds to residue at position 9 in SEQ ID NO 55.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 56
Lys Gly Val Ser Leu Ser Pro Arg
1 5

<210> 57
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the prolines at position 8 in SEQ ID NOs. 57 and 58.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 57

Lys Gly Val Ser Leu Ser Tyr Pro Xaa
1 5

<210> 58
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (8)
<223> binds to residue at position 9 in SEQ ID NO 57.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 58
Lys Gly Val Ser Leu Ser Tyr Pro
1 5

<210> 59
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 8 of SEQ ID NOs. 59 and 60.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 59
Lys Gly Val Ser Xaa Ser Tyr Arg Xaa
1 5

<210> 60
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> SITE
<222> (8)
<223> binds to residue at position 8 of SEQ ID NO. 59.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 60
Lys Gly Val Ser Xaa Ser Tyr Arg
1 5

<210> 61
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 8 of SEQ ID NOs. 61 and 62.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 61
Lys Gly Val Ser Leu Xaa Tyr Arg Xaa
1 5

<210> 62
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> SITE
<222> (8)
<223> binds to residue at position 9 in SEQ ID NO 61.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 62
Lys Gly Val Ser Leu Xaa Tyr Arg
1 5

<210> 63
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 8 of SEQ ID NOs. 63 and 64.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 63
Lys Gly Val Ser Leu Ser Xaa Arg Xaa
1 5

<210> 64
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> SITE
<222> (8)

<223> binds to residue at position 9 of SEQ ID NO 63.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 64
Lys Gly Val Ser Leu Ser Xaa Arg
1 5

<210> 65
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> MUTAGEN
<222> (9)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the proline-amino acid chimeras at position 8 of SEQ ID NOs. 65 and 66.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 65
Lys Gly Val Ser Leu Ser Tyr Xaa Xaa
1 5

<210> 66
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> SITE
<222> (8)
<223> binds to residue at position 9 of SEQ ID NO 65.

<220>
<223> Description of Artificial Sequence: Engineered in

Laboratory

<400> 66
Lys Gly Val Ser Leu Ser Tyr Xaa
1 5

<210> 67
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 7 of SEQ ID NOs. 67 and 68.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 67
Lys Gly Val Ser Xaa Tyr Arg Xaa
1 5

<210> 68
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See page 17 of disclosure for possible structures for Btd

<220>
<221> SITE
<222> (7)
<223> binds to residue at position 8 on SEQ ID NO 67

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 68
Lys Gly Val Ser Xaa Tyr Arg

1 5

<210> 69
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the arginines at position 7 of SEQ ID NOs. 69 and 70.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 69
Lys Gly Val Ser Leu Xaa Arg Xaa
1 5

<210> 70
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> SITE
<222> (7)
<223> binds to position 8 of SEQ ID NO 69

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 70
Lys Gly Val Ser Leu Xaa Arg
1 5

<210> 71

<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=an amino acid like lysine; ornithine or any other natural or unnatural amino acid serving as a linker between each of the Bicyclic Turned Dipeptides at position 7 of SEQ ID NOs 71 and 72.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 71
Lys Gly Val Ser Leu Ser Xaa Xaa
1 5

<210> 72
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> SITE
<222> (7)
<223> binds to residue at position 8 of SEQ ID NO 71

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 72
Lys Gly Val Ser Leu Ser Xaa
1 5

<210> 73
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 73
Arg Phe Phe Glu Ser His
1 5

<210> 74
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)..(18)
<223> the number of glycines linking the N-terminal and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 74
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 75
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)..(21)
<223> the number of glycines linking the N-terminal and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 75
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 76
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 76
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 77
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 77
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 78
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>

<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 78
Lys Gly Val Ser Pro Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 79
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 79
Lys Gly Val Ser Leu Pro Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 80
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 80
Lys Gly Val Ser Leu Ser Pro Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 81
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 81
Lys Gly Val Ser Leu Ser Tyr Pro Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 82
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 82
Lys Gly Val Ser Pro Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 83
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)..(21)

<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 83
Lys Gly Val Ser Leu Pro Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 84
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 84
Lys Gly Val Ser Leu Ser Pro Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 85
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in

Laboratory

<400> 85
Lys Gly Val Ser Leu Ser Tyr Pro Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 86
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 86
Lys Gly Val Ser Pro Ser Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 87
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 87
Lys Gly Val Ser Leu Pro Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 88
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 88
Lys Gly Val Ser Leu Ser Pro Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 89
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 89
Lys Gly Val Ser Leu Ser Tyr Pro Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 90
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 90
Lys Gly Val Ser Pro Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 91
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 91
Lys Gly Val Ser Leu Pro Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 92
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 92
Lys Gly Val Ser Leu Ser Pro Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 93
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 93
Lys Gly Val Ser Leu Ser Tyr Pro Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 94
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of
disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 94
Lys Gly Val Ser Xaa Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 95
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of
disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 95
Lys Gly Val Ser Leu Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 96
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of
disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 96
Lys Gly Val Ser Leu Ser Xaa Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 97
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of

disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 97
Lys Gly Val Ser Leu Ser Tyr Xaa Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 98
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of
disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 98
Lys Gly Val Ser Xaa Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 99
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 99
Lys Gly Val Ser Leu Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 100
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 100
Lys Gly Val Ser Leu Ser Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 101
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)..(21)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 101
Lys Gly Val Ser Leu Ser Tyr Xaa Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 102
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 102
Lys Gly Val Ser Xaa Ser Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 103
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 103
Lys Gly Val Ser Leu Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 104
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 104
Lys Gly Val Ser Leu Ser Xaa Arg Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 105
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 105
Lys Gly Val Ser Leu Ser Tyr Xaa Cys Pro Cys Arg Phe Phe Xaa Leu
1 5 10 15

Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 106
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 106
Lys Gly Val Ser Xaa Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn

20 25 30

<210> 107
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 107
Lys Gly Val Ser Leu Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 108
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 108
Lys Gly Val Ser Leu Ser Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 109
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (8)
<223> Xaa=P*=proline-amino acid chimera. See page 17 of disclosure for possible structures for P*

<220>
<221> DOMAIN
<222> (18)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 109
Lys Gly Val Ser Leu Ser Tyr Xaa Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 110
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (14)..(17)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 110
Lys Gly Val Ser Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly Gly
1 5 10 15

Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 111
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (14)..(17)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 111
Lys Gly Val Ser Leu Xaa Arg Cys Pro Cys Arg Phe Phe Gly Gly Gly
1 5 10 15

Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 112
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (14)..(17)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 112
Lys Gly Val Ser Leu Ser Xaa Cys Pro Cys Arg Phe Phe Gly Gly Gly
1 5 10 15

Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn

20 25 30

<210> 113
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (17)..(20)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 113
Lys Gly Val Ser Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu
20 25 30

Asn

<210> 114
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (17)..(20)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 114

Lys Gly Val Ser Leu Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu
20 25 30

Asn

<210> 115
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (17)..(20)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 115
Lys Gly Val Ser Leu Ser Xaa Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu
20 25 30

Asn

<210> 116
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (14)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 116
Lys Gly Val Ser Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Leu Lys
1 5 10 15

Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 117
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of
disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (14)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 117
Lys Gly Val Ser Leu Xaa Arg Cys Pro Cys Arg Phe Phe Xaa Leu Lys
1 5 10 15

Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 118
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of
disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (14)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 118
Lys Gly Val Ser Leu Ser Xaa Cys Pro Cys Arg Phe Phe Xaa Leu Lys
1 5 10 15

Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25

<210> 119
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (5)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of
disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (17)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 119
Lys Gly Val Ser Xaa Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 120
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (6)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of
disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (17)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>

<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 120
Lys Gly Val Ser Leu Xaa Arg Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 121
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> MUTAGEN
<222> (7)
<223> Xaa=Btd=Bicyclic Turned Dipeptide. See Page 17 of
disclosure for possible structures for Btd

<220>
<221> DOMAIN
<222> (17)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 121
Lys Gly Val Ser Leu Ser Xaa Cys Pro Cys Arg Phe Phe Glu Ser His
1 5 10 15

Xaa Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 122
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<220>
<221> DOMAIN
<222> (20)..(24)
<223> K20/E24 lactamization - domain cyclized

<400> 122
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 123
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<220>
<221> DOMAIN
<222> (23)..(27)
<223> K23/E27 lactamization - domain cyclized

<400> 123
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 124
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<220>
<221> DOMAIN
<222> (24)..(28)
<223> E24/K28 lactamization - domain cyclized

<400> 124
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 125
<211> 34
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Engineered in
Laboratory

<220>
<221> DOMAIN
<222> (27)..(31)
<223> E27/K31 lactamization - domain cyclized

<400> 125
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15

His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30

Leu Asn

<210> 126
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and C-
reminal amino acids may be varied.

<400> 126
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln
20 25 30

Val

<210> 127
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=CH2 repeated n times where n=1 - 20 or more.

<220>
<223> Description of Artificial Sequence: Engineered in

Laboratory

<400> 127
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Ser
1 5 10 15

Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln Val
20 25 30

<210> 128
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and C-reminal amino acids may be varied.

<400> 128
Lys Gly Val Ser Leu Ser Arg Tyr Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Glu Glu Trp Val Gln Lys Tyr Val Asp Asp Leu Glu Leu Ser
20 25 30

Ala

<210> 129
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<220>
<221> DOMAIN
<222> (15)
<223> Xaa=(CH2)n where n=1-20 or more.

<400> 129
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Xaa Glu
1 5 10 15

Glu Trp Val Gln Lys Tyr Val Asp Asp Leu Glu Leu Ser Ala
20 25 30

<210> 130
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MOD_RES
<222> (9)
<223> AMIDATION; acts as a linking moeity between each arginine at position 8 in each of SEQ ID 130 and SED ID 131.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 130
Lys Gly Val Ser Leu Ser Tyr Arg Lys
1 5

<210> 131
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (8)
<223> Binds to the residue at position 9 on SEQ ID NO 130.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 131
Lys Gly Val Ser Leu Ser Tyr Arg
1 5

<210> 132
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> MOD_RES
<222> (9)
<223> AMIDATION

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<220>

<221> DISULFID
<222> (9)
<223> dimer of amino acids 1-9 in which the amino acid chains are joined by a disulphide bond between each of the amidated cysteines at position 9 in each sequence.

<400> 132
Lys Gly Val Ser Leu Ser Tyr Arg Cys
1 5

<210> 133
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> MOD_RES
<222> (31)
<223> AMIDATION

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in Laboratory

<400> 133
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 134
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (20)..(24)
<223> K20/E24 Lactamization - domain cyclized

<220>
<221> MOD_RES
<222> (31)
<223> AMIDATION

<220>
<221> DOMAIN

<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 134
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 135
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<221> DOMAIN
<222> (24)..(28)
<223> K28/E24 Lactamization - domain cyclized

<220>
<221> MOD_RES
<222> (31)
<223> AMIDATION

<220>
<221> DOMAIN
<222> (15)..(18)
<223> The number of glycines linking the N- and
C-terminal amino acids may be varied.

<220>
<223> Description of Artificial Sequence: Engineered in
Laboratory

<400> 135
Lys Gly Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15

Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30